

67/19

394

QIPE

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/09/898,541**

DATE: 07/24/2001  
TIME: 11:18:13

Input Set : A:\Seq\_1st.txt  
Output Set : N:\CRF3\07242001\I898541.raw

**SEQUENCE LISTING**

- (1) (1) GENERAL INFORMATION:

(i) APPLICANT: Haughton, Alan  
Fartida, Shirley M.  
Xi, Yiqing  
Wang, Jiqun

(ii) TITLE OF INVENTION: Method and Reagents for Genetic Immunization

(iii) NUMBER OF SEQ ID NOS: 16

(iv) CORRESPONDING ADDRESS:

(A) ADDRESS: Oppenahl & Larson  
(B) CITY: PO Box 1270  
(C) STATE: WI  
(D) COUNTRY: USA  
(E) ZIP: 53443-8770

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb  
(B) COMPUTER: IBM Compatible  
(C) OPERATING SYSTEM: DOS 5.0  
(D) SOFTWARE: Word Perfect

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US/09/898,541  
(B) FILING DATE: 02-Jul-2001  
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER:  
(B) FILING DATE:

(viii) ATTORNEY AGENT INFORMATION:

(A) NAME: Marina T. Larson  
(B) REGISTRATION NUMBER: 32,038  
(C) FIRM/NAME/DOCKET NUMBER: MSK.P-012

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (+7) 668-2050  
(B) FAX: (+7) 668-2082  
(C) EMAIL:

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1  
(B) TYPE: amino acid  
(D) POLARITY: linear

(ii) MOLECULE TYPE:

(A) DESCRIPTION: peptide

(iii) HYPOTHETICAL: no

(v) FRAGMENT TYPE: internal

(vi) ORIGINAL SOURCE:

(A) ORGANISM: human

ENTERED

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48 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:  
49 Glu Ala Asn Gin Pro Leu Leu Thr Asp  
50  
51 (2) INFORMATION FOR SEQ ID NO: 2:  
52 (i) SEQUENCE CHARACTERISTICS:  
53 (A) LENGTH: 8  
54 (B) TYPE: amino acid  
55 (C) TOPOLOGY: linear  
W--> 57 (ii) MOLECULE TYPE:  
58 (A) DESCRIPTION: peptide  
59 (iii) HYPOTHETICAL: no  
60 (iv) FRAGMENT TYPE: internal  
61 (vi) ORIGINAL SOURCE:  
62 (A) ORGANISM: human  
63 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:  
64 Glu Glu Lys Cln Pro Leu Leu Met Asp  
65  
66 (2) INFORMATION FOR SEQ ID NO: 3:  
67 (i) SEQUENCE CHARACTERISTICS:  
68 (A) LENGTH: 5  
69 (B) TYPE: amino acid  
70 (C) TOPOLOGY: linear  
W--> 72 (ii) MOLECULE TYPE:  
73 (A) DESCRIPTION: peptide  
74 (iii) HYPOTHETICAL: no  
75 (iv) FRAGMENT TYPE: internal  
76 (vi) ORIGINAL SOURCE:  
77 (A) ORGANISM: human  
78 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
79 Asp Ser Pro Leu Ile  
80  
81 (2) INFORMATION FOR SEQ ID NO: 4:  
82 (i) SEQUENCE CHARACTERISTICS:  
83 (A) LENGTH: 6  
84 (B) TYPE: amino acid  
85 (C) TOPOLOGY: linear  
W--> 87 (ii) MOLECULE TYPE:  
88 (A) DESCRIPTION: peptide  
89 (iii) HYPOTHETICAL: no  
90 (iv) FRAGMENT TYPE: internal  
91 (vi) ORIGINAL SOURCE:  
92 (A) ORGANISM: human  
93 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
94 Glu Asp Thr Pro Leu Leu  
95  
96 (2) INFORMATION FOR SEQ ID NO: 5:  
97 (i) SEQUENCE CHARACTERISTICS:  
98 (A) LENGTH: 12  
99 (B) TYPE: amino acid  
100

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131 (i) TOPOLOGY: linear  
W--> 102 (ii) MOLECULE TYPE:  
132 (A) DESCRIPTION: peptide  
133 (iii) HYPOTHETICAL: no  
134 (v) FRAGMENT TYPE: internal  
135 (vi) ORIGINAL SOURCE:  
136 (A) ORGANISM: human  
137 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
138 Pro Ser Arg Asp Arg Ser Arg His Asp Lys Ile His  
139 10  
140  
141 (2) INFORMATION FOR SEQ ID NO: 6:  
142 (i) SEQUENCE CHARACTERISTICS:  
143 (A) LENGTH: 9  
144 (B) TYPE: amino acid  
145 (C) STRANDEDNESS: single  
146 (D) TOPOLOGY: linear  
W--> 117 (ii) MOLECULE TYPE:  
147 (A) DESCRIPTION: peptide  
148 (iii) HYPOTHETICAL: no  
149 (v) FRAGMENT TYPE: internal  
150 (vi) ORIGINAL SOURCE:  
151 (A) ORGANISM: human  
152 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
153 Ser Gly Gly Ser Gly Gly Ser Gly Gly  
154 5  
155 (2) INFORMATION FOR SEQ ID NO: 7:  
156 (i) SEQUENCE CHARACTERISTICS:  
157 (A) LENGTH: 19  
158 (B) TYPE: nucleic acid  
159 (C) STRANDEDNESS: single  
160 (D) TOPOLOGY: linear  
161 (ii) MOLECULE TYPE: genomic DNA  
162 (iii) HYPOTHETICAL: no  
163 (iv) ANTI-SENSE: no  
164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
165 CGCCACCCGA CAAATAGC 19  
166 (2) INFORMATION FOR SEQ ID NO: 8:  
167 (i) SEQUENCE CHARACTERISTICS:  
168 (A) LENGTH: 45  
169 (B) TYPE: nucleic acid  
170 (C) STRANDEDNESS: single  
171 (D) TOPOLOGY: linear  
172 (ii) MOLECULE TYPE: genomic DNA  
173 (iii) HYPOTHETICAL: no  
174 (iv) ANTI-SENSE: no  
175 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
176 GCCTCCTGAA CCTCGGAGAC CACCAGAAGG GGAAACACAT CTG  
177 (2) INFORMATION FOR SEQ ID NO: 9:  
178 (i) SEQUENCE CHARACTERISTICS:  
179 (A) LENGTH: 48

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154           (B) TYPE: nucleic acid  
155           (C) STRANDEDNESS: single  
156           (D) TOPOLOGY: linear  
157        (iii) MOLECULE TYPE: genomic DNA  
158        (iii) HYPOTHETICAL: no  
159        (iv) ANTI-SENSE: yes  
160        (xl) SEQUENCE DESCRIPTION: SEQ ID NO: 9:  
161 TCTGGTGGTT TTGAGGAGTC AGGAGGATC ATTACCATTG CTGTAGTG 48  
162    (2) INFORMATION FOR SEQ ID NO: 10:  
163        (i) SEQUENCE CHARACTERISTICS:  
164           (A) LENGTH: 12  
165           (B) TYPE: nucleic acid  
166           (C) STRANDEDNESS: single  
167           (D) TOPOLOGY: linear  
168        (ii) MOLECULE TYPE: genomic DNA  
169        (iii) HYPOTHETICAL: no  
170        (iv) ANTI-SENSE: no  
171        (xl) SEQUENCE DESCRIPTION: SEQ ID NO: 10:  
172 GGTGCTTCG TAAATCTTG -G 22  
173    (2) INFORMATION FOR SEQ ID NO: 11:  
174        (i) SEQUENCE CHARACTERISTICS:  
175           (A) LENGTH: 19  
176           (B) TYPE: nucleic acid  
177           (C) STRANDEDNESS: single  
178           (D) TOPOLOGY: linear  
179        (ii) MOLECULE TYPE: genomic DNA  
180        (iii) HYPOTHETICAL: no  
181        (iv) ANTI-SENSE: yes  
182        (xl) SEQUENCE DESCRIPTION: SEQ ID NO: 11:  
183 CGCCACCAAGA CAAAGAAC 19  
184    (2) INFORMATION FOR SEQ ID NO: 12:  
185        (i) SEQUENCE CHARACTERISTICS:  
186           (A) LENGTH: 12  
187           (B) TYPE: nucleic acid  
188           (C) STRANDEDNESS: single  
189           (D) TOPOLOGY: linear  
190        (ii) MOLECULE TYPE: genomic DNA  
191        (iii) HYPOTHETICAL: no  
192        (iv) ANTI-SENSE: no  
193        (xl) SEQUENCE DESCRIPTION: SEQ ID NO: 12:  
194 GGTGCTTCG TAAATCTTG -G 22  
195    (2) INFORMATION FOR SEQ ID NO: 13:  
200        (i) SEQUENCE CHARACTERISTICS:  
201           (A) LENGTH: 42  
202           (B) TYPE: nucleic acid  
203           (C) STRANDEDNESS: single  
204           (D) TOPOLOGY: linear  
205        (ii) MOLECULE TYPE: genomic DNA  
206        (iii) HYPOTHETICAL: no

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207 (iv) ANTI-SENSE: y/s  
 208 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13  
 209 CTCACCATAG CCTTGATAGT GATTCTGTTG GTTTGAGAA CG 42  
 211 (2) INFORMATION FOR SEQ ID NO: 14:  
 212 (i) SEQUENCE CHARACTERISTICS:  
 213     (A) LENGTH: 42  
 214     (B) TYPE: nucleic acid  
 215     (C) STRANDEDNESS: single  
 216     (D) TOPOLOGY: linear  
 217     (ii) MOLECULE TYPE: genomic DNA  
 218 (iii) HYPOTHETICAL: no  
 219 (iv) ANTI-SENSE: no  
 220 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14  
 221 CGTTCTTAGA GCAATTAACA TCACTAGCAA CGCTATGCTG AG 42  
 223 (2) INFORMATION FOR SEQ ID NO: 15:  
 224 (i) SEQUENCE CHARACTERISTICS:  
 225     (A) LENGTH: 1  
 226     (B) TYPE: nucleic acid  
 227     (C) STRANDEDNESS: single  
 228     (D) TOPOLOGY: linear  
 229     (ii) MOLECULE TYPE: genomic DNA  
 230 (iii) HYPOTHETICAL: no  
 231 (iv) ANTI-SENSE: y/s  
 232 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15  
 233 GAGTGCAGGG CGTTTGTT C 31  
 234 (2) INFORMATION FOR SEQ ID NO: 16:  
 235 (i) SEQUENCE CHARACTERISTICS:  
 236     (A) LENGTH: 1  
 237     (B) TYPE: nucleic acid  
 238     (C) STRANDEDNESS: single  
 239     (D) TOPOLOGY: linear  
 240     (ii) MOLECULE TYPE: genomic DNA  
 241 (iii) HYPOTHETICAL: no  
 242 (iv) ANTI-SENSE: no  
 243 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16  
 244 CCTGATCA TCACTAGTA 31  
 245 (2) INFORMATION FOR SEQ ID NO: 17:  
 246 (i) SEQUENCE CHARACTERISTICS:  
 247     (A) LENGTH: 1  
 248     (B) TYPE: nucleic acid  
 249     (C) STRANDEDNESS: single  
 250     (D) TOPOLOGY: linear  
 251     (ii) MOLECULE TYPE: genomic DNA  
 252 (iii) HYPOTHETICAL: no  
 253 (iv) ANTI-SENSE: no  
 254 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17  
 255 TACTGCTATG GCAATGAAAT TGGTACACT A 31  
 256 (2) INFORMATION FOR SEQ ID NO: 18:  
 257 (i) SEQUENCE CHARACTERISTICS:

**VERIFICATION SUMMARY**PATENT APPLICATION: **US/09/898,541**

DATE: 07/24/2001

TIME: 11:18:14

Input Set : **A:\Seq\_1st.txt**Output Set: **N:\CRF3\07242001\I898541.raw**

L:22 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:23 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:42 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1  
L:57 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2  
L:72 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3  
L:87 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=4  
L:102 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5  
L:117 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6